



So Cal

Aviation Safety Review

JULY 2002

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Why It's Hard to Talk on the Radio

A CFI recently admitted to me that learning to talk on the radio had been the most difficult part of learning to fly. I wasn't surprised. I lecture and write about public speaking, so people tend to confess their language anxieties to me.

Accepted wisdom states that speaking in public is one of humanity's most feared experiences. So it stands to reason that talking on a public aviation radio rates high among things we naturally dislike. But why?

There are some obvious answers:

- ✍ We don't want to make public mistakes.
- ✍ We don't want controllers to get impatient with us.
- ✍ We worry about how we sound on the radio.

There is an idea lurking in our minds that it shouldn't be that hard, that it was easy for everyone else to learn it. Since we talk all day long in natural settings, we don't understand why we should have trouble with aviation communication.

In reality, it is hard to learn to talk in the unnatural setting of aviation communications for some very real cognitive reasons. These cognitive reasons have to do with how our brain processes language. For instance:

- ✍ We aren't good at repeating things verbatim.
- ✍ We're good at summarizing an idea, but not at restating it word for word.
- ✍ Word-for-word repetition is an esoteric notion that has emerged only recently in the history of language. By no means is it a natural skill.

It takes practice to be able to repeat clearances quickly and concisely. Even professional actors need extensive training to be able to memorize scripts and speak their lines precisely.

Another reason for our difficulty is aviation phraseology. The phraseology doesn't necessarily follow the linguistic rules we have hard-wired into our brains. One theory of human language postulates that verbs and nouns fall in certain places in sentences, and that all human languages follow the same basic rules.

Aviation phraseology is not a natural human language. Rather, it is a technical language concocted by humans, not one evolved over millennia. Because they have been artificially devised, clearances don't necessarily follow the linguistic

patterns we are comfortable with. Consequently, we may have to take a few extra seconds to process what we've heard before we respond.

We can learn to use invented technical languages, but it takes practice.

In normal conversation, slips of the tongue happen approximately every 1,000 words. That means we're all at risk of slipping up on the aviation frequencies.

Slips happen for various reasons. Sometimes we're trying to off load the extra effort it takes to form words. All of us drop endings, truncate prefixes and suffixes and slide from word to word. "Mumbled and garbled speech" is a category in every speech research analysis I've ever seen. By no means is it a natural skill. Sometimes we slip when we're trying to select from the vast number of possibilities in our vocabularies.

Linguists calculate that out of all possible word combinations in our extensive mental dictionaries, there are 160,000,000 ways to utter the first three words of a sentence. They don't all make sense, of course, but our brains have to sort through the logical ways to form a 3-word sentence, and it can take time to scroll through the choices available.

Sometimes slips are processing errors: our brains search for a word and come up with the wrong one. Then, it comes out of our mouths before we can correct it.

It requires different parts of our brains to learn the physical and mental skills of flying. Unfortunately, most of us learn to use the radio almost as a sideline while learning to fly the airplane. In these circumstances, radio work is put last in order of importance.

If you think learning to talk on the radio is hard, you are right. It takes careful learning and practice. So don't underestimate the task of talking on the radio. Do, however, resolve to keep concentrating to stay sharp. ✍

Marsha Hunter, ASC, Pilot, Communications Coach

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Perspectives in Aviation Safety

Check Page 4 for important information on flight restrictions and enforcement actions.



Radio Communications



U.S. Department of Transportation
Federal Aviation Administration

Mike Monroney Aeronautical Center
Airmen Certification Branch, AFS-760
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Safety Meeting Schedule

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CAMARILLO.....PAGE 5

Thursday, July 11, Fabric Covered Aircraft

COSTA MESA.....PAGE 2

Wednesday, July 10, Fabric Covered Aircraft

EL MONTE.....PAGE 3

Wednesday, July 10, ATC Secrets

LA VERNEPAGE 3

Wednesday, July 17, ATC Secrets

LONG BEACH.....PAGE 2

Saturday, July 20, Aerobatic Flying

Saturday, July 20, Great Instructors, Great Students

Tuesday, July 23, New Practical Test Standards

Wednesday, July 31, Runway Safety Action Team

Wednesday, July 31, LGB Airport Association Meeting

RIVERSIDEPAGE 4

Wednesday, July 10, Attitude Instrument Flying

Wednesday, July 31, Surviving Gyro Failure in IMC

SANTA BARBARAPAGE 5

Wednesday, July 31, Survival When Flying Near Edwards AFB

PALMDALE.....PAGE 5

Tuesday, July 16, Vacuum System Failures

SANTA MONICAPAGE 3

Wednesday, July 24, ATC Secrets

Friday, July 12, Fabric Covered Aircraft

VAN NUYSPAGE 5

Tuesday, July 9, Surviving Gyro Failure in IMC

Wednesday, July 10, What are Good Endorsements

Saturday, July 13, Runway Incursions!

Wednesday, July 17, Fuel Management

Saturday, July 20, Mountain Flying

Tuesday, July 23, Ways Not to Get Busted IFR

Saturday, July 27, Night Flying

Tuesday, July 30, Autopilots and Flight Directors

July-Tech Tour

Fabric Aircraft - Do's Don't and Ought to's

Jon Goldenbaum, VP, Poly Fiber and Ceconite, Inc.

July 10-Costa Mesa, July 11-Camarillo; July 12, Santa Monica

Your Western Pacific Aviation Safety Foundation has paid to print this issue. If you want to contribute, contact the officers by e-mail at info@aviationsafety.org.